

Listing of Claims:

1. (Currently Amended) A method of assaying whether an agent affects the beating rate of a cardiac cell myocyte which comprises:
 - (a) contacting a cardiac cell myocyte *in vitro* with an amount of a composition comprising a nucleic acid which encodes an ion encodes at least one of a HCN channel and MiRP1, effective to cause a sustainable beating rate;
 - (b) measuring the beating rate after step (a);
 - (c) contacting the cardiac cell myocyte with an agent to be assayed for its effects on the beating rate;
 - (d) measuring the beating rate after step (c); and
 - (e) comparing the difference between step (b) and step (d), thereby determining whether the agent affects the beating rate.
2. (Currently Amended) The method of claim 1, wherein the cardiac cell myocyte is mammalian.
3. (Canceled)
- 4-8. (Canceled)
9. (Previously Presented) The method of claim 1, wherein the composition comprises a nucleic acid which encodes a HCN channel.
10. (Canceled)

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11. (Previously Presented) The method of claim 9, wherein the composition further comprises a nucleic acid encoding a MiRP1.
12. (Canceled)
13. (Canceled)
14. (Canceled)
- 15-31. (Canceled)
32. (Previously Presented) The method of claim 1, wherein the composition comprises a nucleic acid encoding a HCN channel and a nucleic acid encoding a MiRP1, and the composition is introduced into the cell by an adenovirus infection, viral-mediated infection, liposome-mediated transfer, microinjection, electroporation, or by coculturing the cell with the composition.
33. (Previously Presented) The method of claim 32, wherein the HCN is HCN1.
34. (Previously Presented) The method of claim 32, wherein the HCN is HCN2.
35. (Previously Presented) The method of claim 32, wherein the HCN is HCN4.
36. (Previously Presented) The method of claim 9, wherein the HCN channel is HCN2.
37. (Previously Presented) The method of claim 9, wherein the HCN channel is HCN1.

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38. (Previously Presented) The method of claim 9, wherein the HCN channel is HCN4.
39. (Previously Presented) The method of claim 36, wherein the composition further comprises a nucleic acid encoding MiRP1.
40. (Previously Presented) The method of claim 37, wherein the composition further comprises a nucleic acid encoding MiRP1.
41. (Previously Presented) The method of claim 38, wherein the composition further comprises a nucleic acid encoding MiRP1.
42. (Canceled)